

WHAT IS CLAIMED IS:

1. A nucleic acid comprising a junction of a deletion marker in Table 1.
2. The nucleic acid of Claim 1, wherein said nucleic acid hybridizes to a *M. tuberculosis* complex genome when the deletion is present, but not in an undeleted genome.
3. The nucleic acid of Claim 1, wherein said nucleic acid is from 15 to 25 nucleotides in length.
4. The nucleic acid of Claim 1, wherein said *M. tuberculosis* complex genome is BCG.
5. The nucleic acid of Claim 1, wherein said *M. tuberculosis* complex genome is a variant of *M. tuberculosis*.
6. The nucleic acid of Claim 1, wherein said *M. tuberculosis* complex genome is *M. bovis*.
7. A pair of hybridization primers comprising the nucleic acid of Claim 1, and a second nucleic acid that hybridizes to a second site in an *M. tuberculosis* complex genome.
8. A genetically altered mycobacterium, comprising an exogenous nucleic acid sequence comprising one or more deletion markers as set forth in Table 1.
9. The genetically altered mycobacterium of Claim 8, wherein said mycobacterium is BCG, and wherein said deletion marker is deleted in BCG according to Table 1.
10. The mycobacterium of Claim 8, further comprising a physiologically acceptable carrier for injection.

11. A genetically altered mycobacterium, comprising a deletion resulting from homologous recombination in a deletion marker as set forth in Table 1.

12. The genetically altered mycobacterium according to Claim 11, wherein said mycobacterium is *M. bovis*.

13. The mycobacterium of Claim 12, further comprising a physiologically acceptable carrier for injection.

14. The genetically altered mycobacterium according to Claim 11, wherein said mycobacterium is *M. tuberculosis*.

15. The mycobacterium of Claim 14, further comprising a physiologically acceptable carrier for injection.

16. A method of distinguishing whether a patient has been exposed to BCG or to *M. tuberculosis*, the method comprising:

contacting said patient or a sample derived therefrom with a polypeptide encoded by a deletion marker of Table 1, wherein said deletion marker is present in *M. tuberculosis* and absent in BCG; and

determining the presence of an immune reaction to said polypeptide, wherein a positive response is indicative of exposure to *M. tuberculosis*.

17. The method of Claim 16, wherein said contacting step comprises sub-cutaneous injection of said polypeptide.

18. The method of Claim 16, wherein said contacting step is performed *in vitro* and said sample comprises a blood sample or derivative thereof.

19. A method of distinguishing a bacterial strain of the *M. tuberculosis* complex, the method comprising:

    determining the presence of a deletion marker in Table 1, wherein said deletion is absent in at least one of said candidate strains;

    wherein the presence of said deletion marker is indicative that said strain is not said candidate strain.

20. The method according to Claim 19, wherein said determining step comprises nucleic acid hybridization to said deletion marker.

21. The method according to Claim 19, wherein said determining step comprises antibody binding to a polypeptide encoded by said deletion marker.

22. The method according to Claim 19, wherein said determining step comprises PCR amplification across said deletion.

23. The method according to Claim 19, wherein said determining step comprises hybridization to a junction sequence associated with said deletion marker.